

REMARKS

This Amendment is responsive to the Office Action dated May 22, 2003. Claims 1-10 were pending in the application. In the Office Action, claims 1-5 and 8-10 were rejected, and claims 6 and 7 were objected to. In this Amendment, claims 1-7 and 10 have been amended. Claims 1-10 thus remain for consideration.

Applicant submits that claims 1-10 are in condition for allowance and requests reconsideration and withdrawal of the rejections in light of the following remarks.

Claim Objection

Claims 10 was objected to because of an informality.

Applicant has amended claim 10 as suggested by the Examiner and submits that claim 10 is now in compliance with all formality requirements. Accordingly, Applicant requests that the objection to claim 10 be withdrawn.

§102 and §103 Rejections

Claims 1-5, 9 and 10 were rejected under 35 U.S.C. §102(b) as being anticipated by Ottensooser (U.S. Patent No.: 5,905,856).

Claim 8 was rejected under 35 U.S.C. §103(a) as being unpatentable over Ottensooser in view of Tse (U.S. Patent No.: 5,742,754).

Applicant submits that the independent claims (claims 1 and 9) are patentable over Ottensooser.

Prior to discussing the prior art rejections in detail, Applicant notes that there appears to be some confusion over what is meant by “test application.” In the present invention, this is clearly the software to be tested.

Ottensooser describes a system for determining the functionality of a software system. However, as illustrated in Figure 1, the software system under test 10 is external to the system used for testing. It is acknowledged that, as illustrated in Figure 1, a script programmer 20 may develop TTS scripts to be stored in a TTS script repository 22. A plan writer 31 may then develop TTS plans invoking the test scripts. The test plan may include associated parameter inputs for the test scripts and an expected output. A known SQA Robot 45 interfaces with the software system under test and a test log 60 may be produced. In contrast to the present invention, however, there is no disclosure or suggestion of storing a plurality of test applications (to be tested) together with inputs and expected outputs. With the present invention, these items are grouped together as test scenarios. Ottensooser provides no consideration of preprocessing or choosing for each selected test scenario how to prepare, run and verify the test application. Furthermore, Ottensooser does not consider any “verifying” stage in the sense of the present invention. Ottensooser seems only to verify test results against expected values as part of the logging step, whereas the present invention allows the user to define expected outputs and provide a “verified” process that then uses the defined outputs.

It will be noted that the “SQA Robot” is a commercial tool. According to Ottensooser, it uses, as an input, scripts from the TTS script repository, interacts with the system under test 10 and generates the test logs 60. An additional interaction of the SQA

Robot to its “normal” set up is the TTS shell 40. Hence, in essence, Ottensooser merely considers a “wrapper” around the SQA Robot.

Although Ottensooser would implicitly use some form of memory, there is no memory disclosed for storing the system under test 10 (the “test application”), together with inputs and expected outputs. Furthermore, there is nothing to suggest arranging this information together as a test scenario.

On the basis that there is no consideration of “test scenarios,” Ottensooser certainly does not consider an input selection element for selecting one of these test scenarios. It is acknowledged that, by using TTS plans 30, a variety of different tests can be created with associated parameter inputs and expected outputs. However, it does not seem possible that the TTS plans 30 in any way select how to prepare the system under test 10.

Claim 1 provides for an input selection element for selecting one or more test scenarios whereas Ottensooser does not even contemplate one test scenario (including the system under test 10 together with inputs and expected outputs), let alone a plurality of test scenarios. Furthermore, the input selection element allows for selecting how to prepare the test application (system under test 10).

There is no suggestion in Ottensooser of a selection memory for storing the results of the input selection element.

The Examiner has acknowledged that Ottensooser does not disclose expressly an input selection element or a selection memory. Nevertheless, the Examiner has argued that Ottensooser does disclose a select element and has referred to column 3, line 11 to column 4, line 13 and column 5, line 7 to 62. However, close inspection of the

cited passages fail to reveal how Ottensooser describes a select element. Following on from above, since Ottensooser does not include an input selection element or a selection memory, it is difficult to see how it discloses or suggests an element for selecting a test application (system under test 10) according to the contents of a selection memory. Indeed, Ottensooser does not appear to disclose or suggest any element for selecting a system under test 10. It seems, instead, that the plan writer 31 develops TTS plans 30 according to the required system under test 10.

Claim 1 then defines a prepare element for building the test application, for instance, preparing/building the test application and downloading it, for instance to form a system under test. The passages to which the Examiner has referred appear to relate to preparing the test plan, rather than the software application to be tested. Steps suitable for the prepare process are described with reference to Figure 4 of the present application. There is no suggestion or disclosure of a similar system in Ottensooser.

Although Ottensooser considers the use of a test log. There does not appear to be any suggestion or disclosure of storing log files for preparation, running and verification of the test application. Furthermore, although Ottensooser seems to verify test results against expected values, the present invention allows the user to define expected outputs and provide a verify process that uses the defined output.

Similar arguments apply to the features of claim 9. Hence, claims 1 and 9 are believed to be both novel and non-obvious over the prior art. With regard to claims 2-8 and 10, on the basis that claims 1 and 9 are both novel and non-obvious for the reasons given above, claims 2-8 and 10 are believed also to be both novel and non-obvious. In any event, Applicant offers the following additional comments.

The present invention is highly advantageous over other test systems in that it can be used for running tests on embedded devices and can be provided independently of the tests and the software.

On the basis that Ottensooser appears only to consider testing one system, it does not appear to provide any suggestion of the arrangement of claim 3 where one of the prepare element, run element and verifying element is conducted for all of the test applications before the next of the prepare element, run element and verifying element.

For completeness, we note, for the reasons given above, Ottensooser does not disclose an input selection element and, therefore, similarly does not disclose the sanity check of claim 4.

With regard to claim 5, the Examiner has noted the passage in Ottensooser which describes log entries of pass or fail. However, there is no explicit disclosure of exit status codes in Ottensooser. Furthermore, since Ottensooser does not contemplate a prepare process, there is no suggestion of exit status codes for such a process or for abandoning the test when the exit status code are not OK.

Applicant respectfully submits that all of the claims now pending in the application are in condition for allowance, which action is earnestly solicited.

It is submitted that these claims, as originally presented, are patentably distinct over the prior art cited by the Examiner, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. Changes to these claims, as presented herein, are not made for the purpose of patentability within the meaning of 35

U.S.C. §§101, 102, 103 or 112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicant is entitled.

Statements appearing above with respect to the disclosures in the cited references represent the present opinions of the Applicant's undersigned attorney and, in the event that the Examiner disagrees with any such opinions, it is respectfully requested that the Examiner specifically indicate those portions of the respective reference providing the basis for a contrary view.

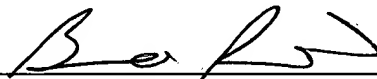
If any issues remain, or if the Examiner has any further suggestions, he/she is invited to call the undersigned at the telephone number provided below.

The Examiner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account No. 50-0320.

The Examiner's consideration of this matter is gratefully acknowledged.

Respectfully submitted,

FROMMER LAWRENCE & HAUG LLP

By: 
Bruno Polito
Reg. No. 38,580
(212) 588-0800